

# CASE STUDY

Orangewood Elementary School  
Phoenix, AZ



## PHASE I The Orangewood Challenge:

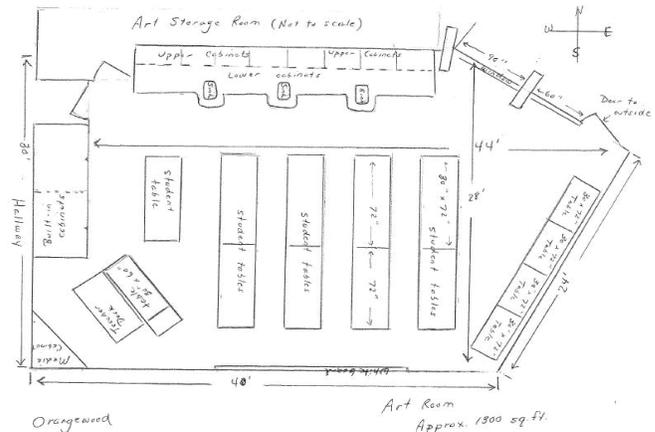
MooreCo has had a relationship with the Washington Elementary School District for some time, and when the need came for a means to outfit a small STEM classroom and a large art room for pilot classrooms, the connection to Orangewood Elementary School in Phoenix was made.

Dr. Dianna Bonney, the K-8 STEM program leader, and Mrs. Catherine Switzer, the K-8 art teacher, were the first on board for a means to improve collaboration in their respective rooms, and the full gamut of grade levels. With their rooms designed to be traditional stand-and-deliver/sit-and-listen pedagogies, change was in order. Budgets are tight in the Title I school but they were hoping for a low cost and high impact improvement to achieve their goal of instilling a strong foundation of critical thinking and problem solving skills. Both STEM skills and creativity go hand in hand in their vision for their students.

The STEM area is a smaller footprint with a variety of student populations, ages, and projects, some of which take up ample floor space, such as robotics. Permanent spaces were still needed for desktop computers and Chromebooks.

The art room is large with virtually every student K-8 in a variety of classes. Flexibility for multiple projects, ages, and desk space was required. Projects were both group and individual; therefore, space had to be configured quickly between classes.

We began with a wish list and a space plan and went from there. The keywords were collaboration, flexibility, integration, communication, durability, and engagement.



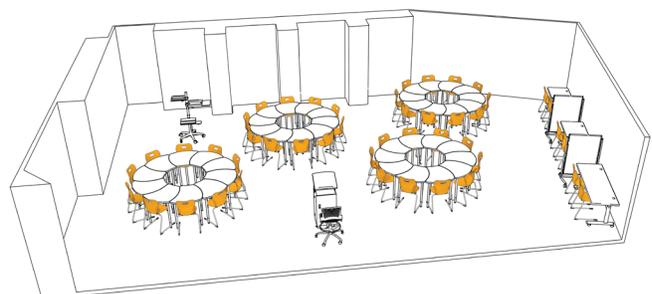
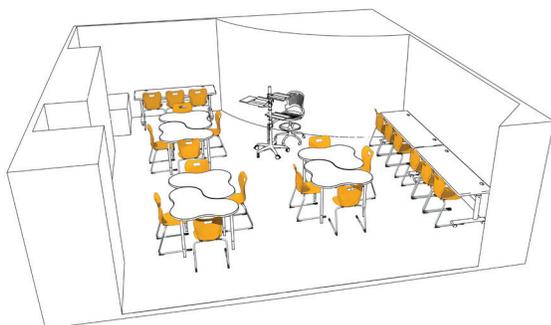
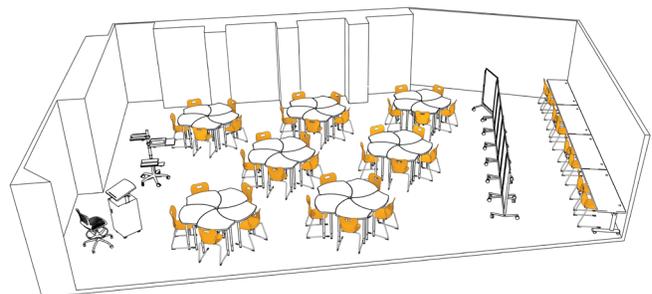
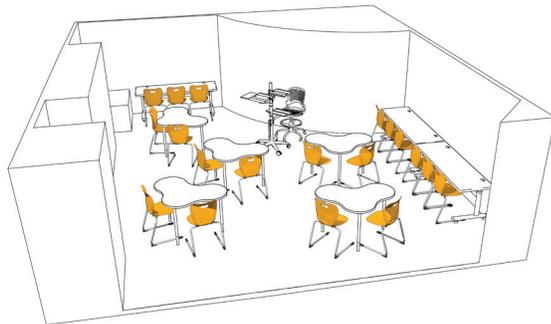
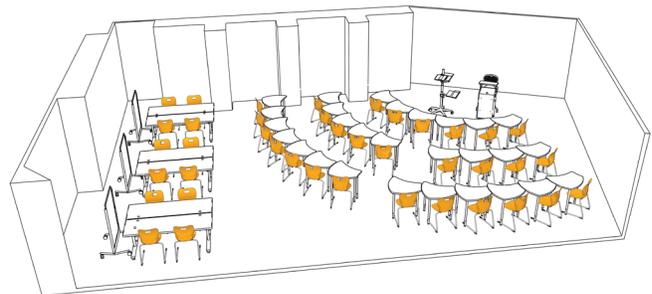
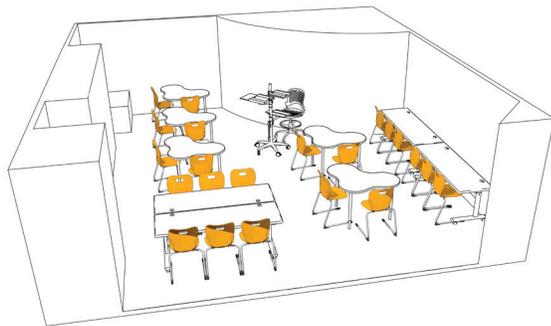
## Design Process for the Active Classroom:

From a hand sketch and a tape measure, progressing to a variety of 2D space plans, it becomes easy to see how your space can be used more effectively. Happy mediums for the broad range of sizes of students were developed, and good average desk heights were found via student and teacher feedback.

Chosen for the mix were Cloud 9 Tables, Sharewall® Full Wall Whiteboard, Standing Height Flipper Tables, Up-Rite Stools, Alpha Cart Mobile Teacher's Technology Station, and Alumni Smooth Back seating for the STEM room.

Tables are easy to move, or flip to store. Chairs can be stacked together or on desks and tables to free up floor space quickly. Tall standing height flip top tables paired with perch like stools keep energy levels up while researching, and the full wall Sharewall® whiteboard has the whole group brainstorming at once.

The art room is finished with full Shapes Configurable Desk System and extra Height Adjustable Flip Top Training Tables when extra space is needed for large projects. Several mobile whiteboards are in the room for displaying art, sharing drawings, or as a partition to allow for a bit of privacy when needed. Alumni Smooth Back Chairs and a Circulation Stool for Mrs. Switzer round out the new and totally flexible classroom.



## Update One Semester Later:

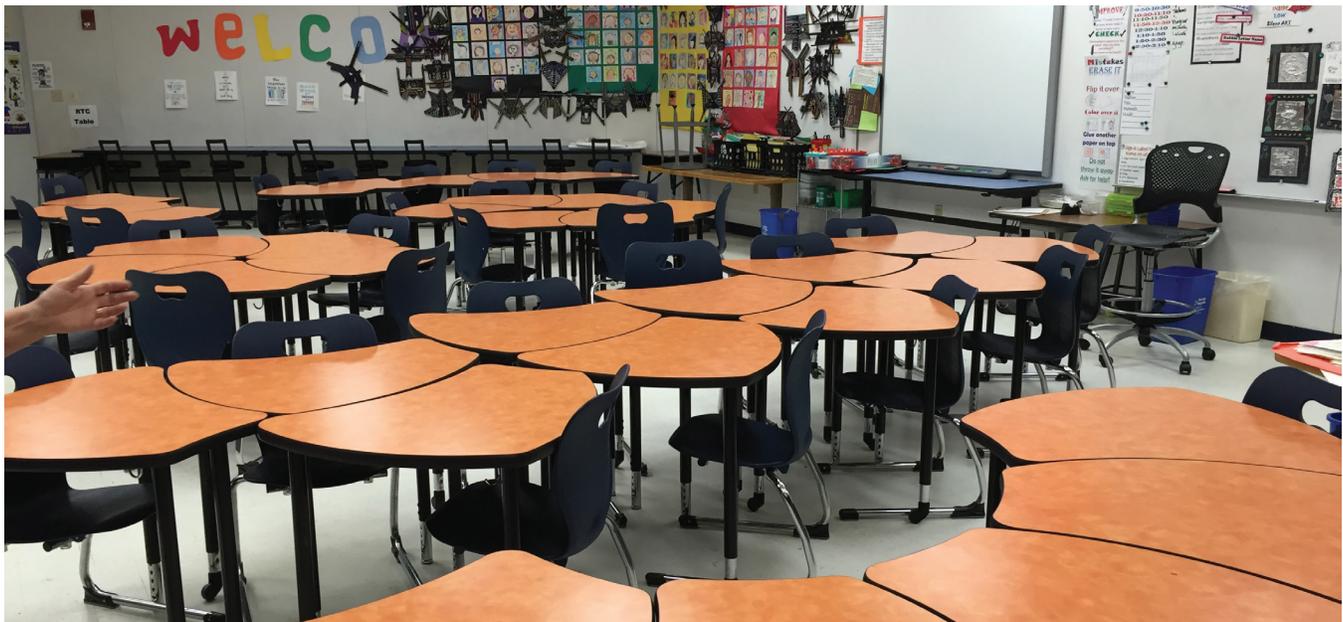
The teacher and student benefits range from seeing the attitudes change in the more collaborative environment, to making the space needed for kinesthetic learning. Ergonomics and the feeling of being in a progressive environment were also encouraging to all the grades who experienced the change.

### Dr. Bonney's feedback from the STEM classroom:

- Flexible groupings encourage more collaborative projects, more cooperative learning.
- Castered Cloud 9 Tables make it simple to adjust groupings, e.g., when a small group of four becomes five or six, it literally takes seconds to add another table.
- The "front" of the room can be easily shifted, keeping students more easily engaged. Changes in the room environment generates interest in what is going on in the room.

### Mrs. Switzer's feedback from the art room:

- Students seem to identify and interpret the art activity better with the smaller grouping, and progress more positively as the three- or four-kid groups can discuss projects more easily and share materials quickly.
- The modern desk colors are wonderful, don't show the crayons, paints, etc., and kids love the fact that the colors are our school colors. I teach an especially colorful curriculum.
- Highlighting some of the table group shapes as the "reward" group lets me single out a group of kids and that has changed the environment greatly.



## Student Feedback:

Thank you for the tables, chairs, and boards. They are fashionable and comfortable.

Andres Gonzales

We love the share wall and the cloud tables. They look like furniture in the future. We use them all the time.

gma

the clouds give more room so we can do big projects.

Christian Armenta

I like the shape of the blue clouds and how they can make even more shapes. Thank you!

Mason

I like the way the "cloud" tables look so cool and the clouds also really like the share wall because we get to write all of our ideas down! Every day is AMAZING!

-Cynthia A.

it's alot easier to put the tables together for when we talk in a group!

Cordelia M. Yoder

We now have the classroom of the future! And we don't have to be squished!

From: Guillermo

the clouds are good for a left or right handed person. And the flipper tables are

JESUS

My favorite part is how you can move the furniture around so easily.

Avery King

I like the new tables because they look like fun clouds and are really easy to move.

Audrey E

Thank you for the funcher, tables, chairs and white board, and really white board. I loved it so much.

-Zarina

it helps us work together because the tables move and fit together.

Fatima Soria

## PHASE II

### A Visit Two Years Later

#### ***From Collaboration to Community: The Times of Social Responsibility***

We followed up with Dr. Dianna Bonney on November 2017 and got to chat in person with students about their furniture and the impact it had brought to their learning environment. It was clear that through collaboration a sense of community had formed. The spirit of learning would become heightened to the spirit of living life fully. By now, the robotics program was established from first to eighth grade and our "room" was also used for gifted and talented kids of all ages.

We learned that students helped assemble the furniture and even came after school hours to do so. We also found out that parents, who had never met before, gathered to help students assemble the furniture for the rooms. According to Dianna, the sense of community lead the school to new initiatives. As an example students and faculty would go for walks during the day to stimulate their physical well being, many times gathering on weekends as well.

By now "our robotics room" had another champion bring the award home from a different grade level. The students were engaging in other activities, beyond curriculum, to reach their goals. During our visit a group of eighth graders were working on a letter to raise funds and seek sponsors for their next competition. Once again, collaboration lead to a sense of community and duty. As Dianna herself said, "We teach our kids to be citizens, not only students, and be the best they can be, not just academically but as part of the world they live in."

We asked the first graders from the gifted and talented program if they thought it was genetics or the environment that made them smarter. We wanted to find out from the young mind if they felt that collaborative settings influenced their way of thinking. After conferring they replied, "the environment."

It concludes that creative thinking leads to challenging thinking and open communication, establishing a trusting and safe environment in which students mentor and learn from one another. It makes us proud to know this is achieved by a masterful configuration of a few desks and chairs and a solid curriculum.

As for the furniture itself, here are a few comments:

#### **Cloud Desk:**

"The design and and different configurations allow us to congregate better. We can talk and brainstorm while

having enough work area as well." – Dianna Bonney

"The Robotics program works in stations and rotations, therefore the collaborative setting allows for faster rotation and less clutter." – Dianna Bonney

#### **Sharewall:**

"The favorite amongst students. It is divided into sections of theory, facts, answers, and ideas. There is space for everyone to write down their thoughts and the way they get to their answers." – Dianna Bonney

#### **Casters on Desks:**

"Helps students move around faster and rearrange the classroom in different settings, helping us communicate and think better." – Seventh grade student

"We are now doing robotics as part of our regular school day and the mobility of your furnishings has given us the flexibility to engage a large number of students in a relatively small space. My students describe our classroom space as a place where problems get solved." – Dianna Bonney



